

REMARKS:

In the foregoing amendments, the limitations of claims 2 and 3 and a portion of the limitations of claim 11 were inserted into claim 1. Claim 1 now defines that the delivery pressure of the pressure rising pump provided at an inlet of the emulsifying means falls in a range of 5 MPa through 15 MPa (such as set forth in previously presented claim 3) and that a diameter of an equivalent circle of the small hole of the partition wall falls in a range of 0.5 mm through 2 mm (such as set forth in previously presented claim 2). In addition, claim 1 now defines that an inside of the main body is aligned with a spacer between the partition walls and/or an interval between the partition wall and one end of the main body, and the spacer has a length in a longitudinal direction longer than the diameter of the small hole(s) of the partition walls. Support for this limitation in claim 1 can be found in presently pending claim 11 and in Fig. 4 of the present application, which shows, for example, a first spacer 65 having a length longer than the diameter "D" of the small holes. Claim 6 was amended to depend from claim 1. Claims 2-4, 13-18, and 20 were canceled. After the foregoing amendments, claims 1 and 5-12 remain pending in the application for consideration

Applicant respectfully requests that the foregoing amendments be entered under the provisions of 37 C.F.R. § 1.116(b) for the purposes of placing the application in condition for allowance or for the purposes of appeal. The

foregoing amendments inserted the limitations of dependent claims into independent claim 1 and further defined the spacer along the lines previously set forth in allowed claim 11. For these reasons, applicant respectfully requests that the foregoing amendments be entered under the provisions of 37 C.F.R. § 1.116(b) for the purposes of placing the application in condition for allowance or for the purposes of appeal.

Applicant desires to express thanks to Examiner David L. Sorkin for the courtesies extended the undersigned in a personal interview on July 28, 2005.

In the interview, the examiner stated though the chambers 124 and 130 of Cooke '254 may be small, they are still reasonably considered chambers.

Concerning the pressure limitations in claim 3, the examiner and the undersigned disagreed as to whether the apparatus of Cook would be capable of providing the pressure defined therein. In addition to the prior art of record, U.S. patent No. 1,924,080 of Gram was discussed in the interview.

Claim 11 was allowed. Unfortunately, the Official action maintained the prior art rejections of applicant's other claims. Claims 1, 3, 5, 10, and 12 were rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. patent No. 4,533,254 of Cook et al. (Cook). Claims 2, 4, 6, 7-9, 13-18, and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cook. These rejections are similar to that set forth in the previous Official action. Page 4 of

the Official action included a Response to Arguments, which contained a reply to applicant's arguments set forth in the response filed on February 4, 2005.

In the Response to Arguments, the Official action stated that the statement of the rejection for claim 1 was changed to explain where Cook teaches that the plurality of chambers are arranged in series and partitioned by walls. In the rejection, the Official action stated that the chambers of Cook are arranged in series and partitioned by walls in Fig. 13, and the walls have one or more small holes (for example, 150 and 151).

Applicant respectfully submits that claims 1 and 5-12 are patently distinguishable from the teachings of Cook within the meaning of 35 U.S.C. § 102 or 35 U.S.C. § 103(a) for at least the following reasons.

Present claim 1 defines an inside of the main body has a spacer arranged between the partition walls and/or an interval between the partition wall and one end of the main body, and the spacer has a length in a longitudinal direction longer than the diameter of the small hole(s) of the partition walls. The teachings of Cook do not remotely contemplate or suggest this structure, and therefore, cannot anticipate or render obvious the invention set forth in present claim 1.

The relationship between the length of the spacer and the diameter of the alleged small holes proposed by the teachings of Cook is different from and opposite to that set forth in present claim 1. This difference is attributed to the

differences between the functioning and operation of the device proposed by Cook and that of present claim 1. For example, in Cook fluids flow out of two channels 150, 151, and when the two fluid flows collide with each other under great pressure the size of the particles contained in the fluid is reduced.

Within the teachings of Cook, if the length of the space between the two fluid flows is longer, it is difficult or impossible to create a sufficient collision force for reducing the size of the particles. For this reason, the thickness of fluid passage 132 must be very thin, which can be achieved by the use of a very thin shim 112 as proposed in Cook. In contrast thereto and in the structure of present claim 1, a friction force is caused between the rapid flow of fluid into the chamber through the hole(s) in the partition walls and the mixed liquid contained within the chamber (which is almost at a standstill). This friction force causes the sizes of particles of the mixed liquids to become smaller.

Therefore, in the invention defined in claim 1, a sufficient distance for the rapid flow to travel within the chamber is necessary (to cause a larger friction area).

This can be achieved by the use of a relatively long spacer for spacing the partition walls, as defined in claim 1.

In addition, applicant respectfully submits that the interpretation of the arrangement shown in Fig. 13 of Cook that was adopted in the Official action is unusual and that such an interpretation cannot make the presently claimed invention unpatentable from the teachings of Cook. For example, item 124 in

Fig. 13 of Cook is a conduit (i.e., feed pipe). This is shown by item 125 in Fig. 10 of Cook. Item 130 is a fluid discharge passageway. The respective cross-sectional area of items 125 and 132 is smaller than that of grooves 121 and 122 (inlet channels 150 and 151). In the interpretation of Cook proposed in the Official action, the grooves 121 and 122 (inlet channels 150 and 151) were equated to the small holes and items 124 and 130 were equated to serially arranged chambers according to applicant's claims. However, with this interpretation, the small holes of Cook would have a cross-sectional area larger than that of the chambers, which is impractical and impossible in the arrangement of applicant's claims. For these reasons, applicant respectfully submits that the teachings of Cook cannot contemplate or suggest the invention of present claim 1.

In the Response to Arguments, the Official action apparently stated that the limitation in applicant's claims that the delivery pressure of the pressure rising pump provided at an inlet of the emulsifying means falls in a range of 5 MPa through 15 MPa is of no patentable significance, because it is an intended pressure. The examiner stated that "the manner or method in which such machine is to be utilized is not germane to the issue of patentability of the machine itself," *In re Casey*, 152 USPQ 235 (CCPA 1967). The Official action continued that Col. 8, lines 30-31, of Cook, makes it clear that the pump would

be capable of providing the pressure mentioned in the claims, as it states "a pump capable of developing up to 10,000 psi."

Applicant respectfully submits that the pump proposed in Cook cannot inherently teach a delivery pressure of the pressure rising pump provided at an inlet of the emulsifying means in a range of 5 MPa through 15 MPa, as presently claimed. In particular, applicant respectfully submits that the question is not whether the pump of Cook would be capable of providing the pressure mentioned in the claims, but whether the pump can operate at the pressure of applicant's claims within the device proposed by Cook. Every limitation in a claim must be considered when determining the patentability of the claim. To determine whether an invention would have been obvious in light of the prior art requires one to compare the claimed "subject matter as a whole." *In re Ochiai*, 37 USPQ2d 1127, 1131 (Fed. Cir. 1995). The Casey case cited in the Official action is an old case. If Casey has a contrary holding to that of Ochiai, it was overruled by Ochiai. The teachings of Cook require that the pressure fed into the block is between about 4000 and 10,000 psi, which is equivalent to about 27.58 Mpa and 68.95 Mpa. Thus, the pressure proposed by Cook is vastly in excess of that required in applicant's claim 1, which requires that the delivery pressure of the pressure rising pump provided at an inlet of the emulsifying means falls in a range of 5 MPa through 15 MPa. The importance of the presently claimed pressure is shown in figure 7 and

discussed in the accompanying disclosure of the present application. Since the device proposed by Cook cannot function or operate at the pressures of applicant's claims, the teachings of Cook cannot contemplate or suggest the invention defined in claim 1. For these reasons, applicant respectfully requests that the examiner reconsider and withdraw this rejection.

Present claim 1 defines, *inter alia*, that an equivalent circle of the small hole of the partition wall falls in a range of 0.5 mm through 2 mm. The Official action stated that this limitation is obvious from the teachings of Cook, citing column 8, lines 3-24, of Cook. This portion of Cook proposes a nozzle height H_N of at least 10 μm (0.01mm) which is 20 times smaller than the lower limit of 0.5 mm as required in the present claims. Viewing figure 9 of Cook, it appears that the width of the nozzle W_N is greater than its height. However, this combination of measurements does not suggest a range of 0.5 mm through 2 mm, as required in the present claims. In addition, it is respectfully noted that the teachings of Cook require an extremely higher pressure, when compared to applicant's claims, as discussed in the next paragraph. Increasing the size of the nozzle in Cook will diminish the pressure required therein. For these reasons, applicant respectfully submits that one of ordinary skill in the art would not be motivated to modify the nozzle proposed by Cook by increasing its size, so that it could contemplate or suggest the small hole of the partition wall in applicant's claims that falls in a range of 0.5 mm through 2 mm. Therefore,

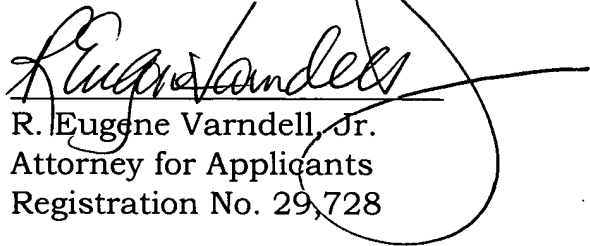
applicant respectfully submits that claim 1 is patently distinguishable from the teachings of Cook.

For reasons including the foregoing, applicant respectfully submits that claims 1 and 5-12 are patently distinguishable from the teachings of Cook within the meaning of 35 U.S.C. § 102 or 35 U.S.C. § 103. Therefore, applicant respectfully requests that the examiner reconsider and withdraw the rejections set forth in the outstanding Office action of applicant's claims over these teachings.

Based on the above, a formal allowance of claims 1 and 5-12 is respectfully requested. While it is believed that all the claims in this application are in condition for allowance, should the examiner have any comments or questions, it is respectfully requested that the undersigned be telephoned at the below listed number to resolve any outstanding issues.

In the event this paper is not timely filed, applicant hereby petitions for an appropriate extension of time. The fee therefor, as well as any other fees which become due, may be charged to our deposit account No. 22-0256.

Respectfully submitted,
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